# Performing Tasks Using the NX-OS Style CLI

# Migration to Cisco ACI Virtual Edge

## Migrate a VDS Domain to Cisco ACI Virtual Edge Using the NX-OS Style CLI

During migration, you enable the domain to use Cisco ACI Virtual Edge.

### Before you begin

You have created a VDS domain. See the procedure "Creating a VMM Domain Profile" in the *Cisco ACI Virtualization Guide*.

### Procedure

Migrate the VDS VMM domain.

### Example:

```
apic1(config)# vmware-domain mininet
apic1(config-vmware)# configure-ave
apic1(config-vmware-ave)# vxlan multicast-pool 225.2.1.1-225.2.1.100
apic1(config-vmware-ave)# exit
apic1(config-vmware)# exit
apic1(config)# exit
apic1#
```

# Improving Cisco ACI Virtual Edge Availability with VMware vSphere Proactive HA

## Enabling vSphere Proactive HA Using NX-OS Style CLI

You can use the NX-OS style CLI to perform several tasks in Cisco Application Policy Infrastructure Controller (APIC):

- Enable host availability assurance, which creates a vSphere Proactive HA provider object that resides in VMware vCenter. The object enables VMware vCenter to quarantine a host with a nonworking Cisco Application Centric Infrastructure (ACI) Virtual Edge and move its VMs.

- Set the time period before VMware vCenter quarantines the host with the nonworking Cisco ACI Virtual Edge and move VMs from the host.

**Note**      When you add hosts to a cluster on which Proactive HA is already configured, and then add the host or attach the host to a Cisco ACI Virtual Edge VMM domain, those hosts may not work properly in some circumstances. The hosts may not work properly in Proactive HA or when Cisco ACI Virtual Edge or OpFlex goes down. The hosts also may not go into quarantine mode although the health status of the host is correctly set to yellow in Cisco Cisco Application Policy Infrastructure Controller (APIC).

To fix the problem, disable Proactive HA on the cluster and then re-enable it.

**Procedure**

**Step 1**      Enable host availability assurance:

```
apic1# config
apic1(config)# vmware-domain mininet
apic1(config-vmware)# avail-monitor enable
apic1(config-vmware)# show run
# Command: show running-config vmware-domain mininet
# Time: Mon Aug  6 22:05:58 2018
  vmware-domain mininet
    vlan-domain member mininet type vmware
    vcenter 172.23.143.235 datacenter mininet dvs-version 6.0
      # username admin
      esx-avail-override 172.23.143.228 yellow
      exit
    configure-ave
      switching mode vxlan
      multicast-address 225.1.1.1
      vxlan multicast-pool 225.2.1.1-225.2.1.100
      exit
    avail-monitor enable
    exit
apic1(config-vmware)#
```

**Step 2**      Set the Cisco ACI Virtual Edge timeout:

```
apic1# config
apic1(config)# vmware-domain mininet
apic1(config-vmware)# configure-ave
apic1(config-vmware-ave)# ave-timeout 10
```

You can choose any value between 10 and 100 seconds, inclusive. The default is 30 seconds.

### What to do next

Enable the VMware vSphere Proactive HA feature in VMware vCenter if you have not done so already. See the section Enabling vSphere Proactive HA in VMware vCenter in this guide.

You can set a state for a given host to override the default state, which is based on the health of the Cisco ACI Virtual Edge. See the section Manually Setting the Health Level of the ESXi Host.

# Setting a State on the Cisco ACI Virtual Edge Host Using NX-OS Style CLI

### Before you begin

You must have a host that contains Cisco ACI Virtual Edge.

### Procedure

Set a state for the host:

```
apic1# config
apic1(config)# vmware-domain mininet
apic1(config-vmware)# vcenter 192.168.0.235 datacenter apic1(config-vmware)# vcenter
172.23.143.235 datacenter mininet
apic1(config-vmware-vc)# esx-avail-override 192.168.0.1 yellow
apic1(config-vmware-vc)# show run
# Command: show running-config vmware-domain mininet vcenter 192.168.0.235 datacenter
 mininet
# Time: Mon Aug  6 23:47:17 2018
  vmware-domain mininet
    vcenter 192.168.0.235 datacenter mininet dvs-version 6.0
      # username admin
      esx-avail-override 192.168.0.1 yellow
      exit
    exit
apic1(config-vmware-vc)#
```

# Configuring VM Group Protection Using the NX-OS Style CLI

You can use the NX-OS style CLI to guarantee that specific VM groups be moved to working hosts if a Cisco Application Centric Infrastructure (ACI) Virtual Edge host stops working.

### Before you begin

You must have configured VM groups in VMware vCenter and enabled vSphere Proactive HA in Cisco Application Policy Infrastructure Controller (APIC).

**Procedure**

Configure VM group protection.

**Example:**

```
apic1# config
apic1(config)# vmware-domain mininet
apic1(config-vmware)# vcenter 192.168.0.1 datacenter mininet
apic1(config-vmware-vc)# protect-vm-group "AVE_Cluster_Name/VM_Group_Name"
```

*AVE_Cluster_Name* is the name of the ESXi cluster on the VMware vCenter where the VM groups have been defined and where the affinity rules are programmed. VM groups are cluster-specific. *VM_Group_Name* is the name of the VM group present in the specified cluster.